DECLARATION FOR THE RECORD OF DECISION

FOR THE SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION

OPERABLE UNIT

SITE NAME AND LOCATION

Southeast Rockford Groundwater Contamination
Rockford, Illinois

STATEMENT OF BASIS AND PURPOSE

This decision document presents the selected remedial action for the Southeast Rockford Groundwater Contamination Site, in Rockford, Illinois, which was chosen in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), and, to the extent practicable, the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). This decision is based on the administrative record for the site.

The State of Illinois and the United States Environmental Protection Agency concur on the selected remedy.

ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this Record of Decision (ROD), may present an imminent and substantial endangerment to public health, welfare, or the environment.

DESCRIPTION OF THE SELECTED REMEDY

The function of the first Operable Unit for this site is to eliminate the risks associated with exposure of the contaminated groundwater to residents of the Southeast Rockford area. While this Operable Unit does not address the source of groundwater contamination, the Phase I Remedial Investigation as well as future investigations will involve continued study of the plume. A subsequent ROD will address remediation of the contamination plume.

The major components of the selected remedy include:

Extending water mains and connecting affected residences to

the City of Rockford water distribution system, and

The reactivation of Rockford Municipal Well #35 and the development of a treatment facility for this well.

STATUTORY DETERMINATIONS

This interim action is protective of human health and the environment and is cost-effective. This interim remedy (providing an alternate drinking water supply) will comply with those environmental standards directly associated with the limited nature of this action. The remedy utilizes permanent solutions and alternate technologies to the maximum extent practicable, given the limited scope of this action. The statutory preference for remedies that employ treatment that reduces toxicity, mobility or volume as a principal element will be addressed by both this and the final response action. Subsequent actions are planned to address fully the principal threats posed by the conditions at this site.

Because this remedy will result in hazardous substances remaining on-site above health-based levels, a review will be conducted within five years after commencement of the remedial action to ensure that the remedy continues to provide adequate protection of human health and the environment.

Valdas V. Adamkus — 6/14/91.

(Regional Administrator, Region V, U.S. EPA) Date

M A Gade by — 5/22/91

(Director, Illinois EPA) Date

RECORD OF DECISION SUMMARY
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION
OPERABLE UNIT
ROCKFORD, ILLINOIS

I. SITE DESCRIPTION

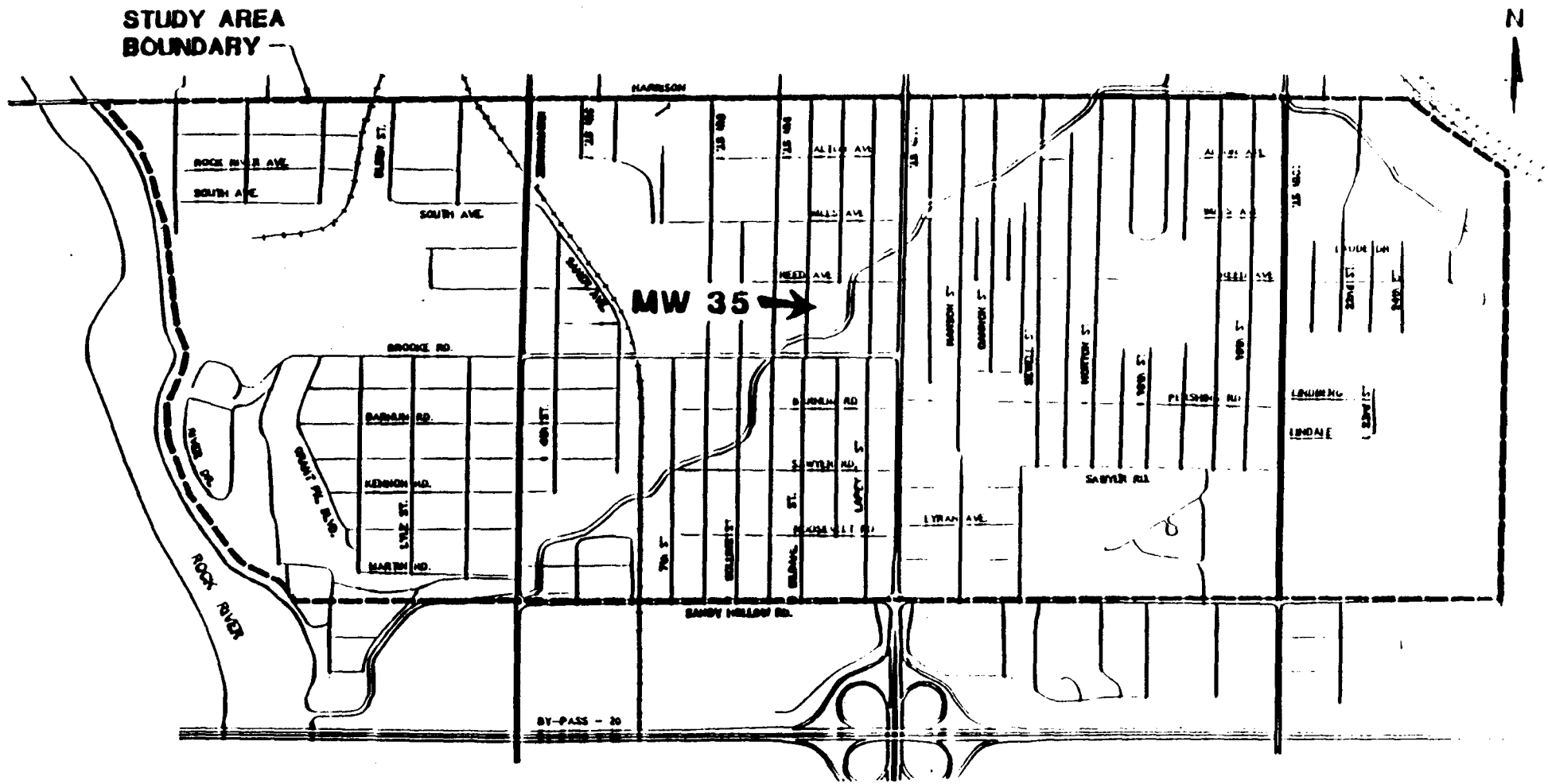
The study area is located within southeast Rockford in Winnebago County, and consists of approximately two (2) to three (3) square miles in Sections 1, 2 and 3, T43N, R13 and Section 6, T43N, R2e. The study area is bounded by Harrison Avenue to the north, Sandy Hollow Road to the south, the north-south center line of Section 6 to the east and the Rock River to the west. The study area is shown in Figure 1.

The study area has been expanded eastward, westward and southward from the boundaries which were used to score the site for inclusion on the United States Environmental Protection Agency's (U.S. EPA's) National Priorities List (NPL). The eastern boundary has been moved from 21st Street to the North-South center of Section 6. The previous western boundary of the site was Eighth Street, but the present study area extends west to the Rock River. The previous southern boundary was Sawyer Road, but the present study area extends south to Sandy Hollow Road.

The study area is predominately an urban residential area that includes scattered retail and commercial operations. A small industrial park is located near the eastern boundary of the study area in the vicinity of Laude Drive. The study area is predominately flat-lying and slopes gently westward toward the Rock River, but locally contains low-relief hilly areas. Maximum topographic relief across the study area is approximately 120 feet. A small concrete-lined drainage ditch runs across the study area and discharges to the Rock River near the southwestern corner of the study area.

The Southeast Rockford study area is situated over a valley train deposit that unconformably overlies Ordovician-aged bedrock. The valley train deposits are a complex sedimentary assemblage of unconsolidated sands, gravels, silts, clays and tills deposited on the margins of the ancestral Rock River during various glacial events. These deposits are laterally discontinuous with complex stratigraphic relationships. Within the study area, the valley train deposit thickens to the west. In the vicinity of Harrison and Horton, the unconsolidated sediments are approximately 84 to 93 feet thick. Municipal Well 35 at Ken Rock playground (2944 Bildahl Street) has a depth to bedrock of 214 feet.

The unconsolidated valley train sediments overlie an eroded bedrock surface of the Galena-Platteville dolomite, the Glenwood Formation and the St. Peter Sandstone, which is a major aquifer in Illinois. The Galena-Platteville and the Glenwood Formation pinch out to the west, so that at the Rock River, the valley train deposits directly overlie the St. Peter Sandstone.



CDM
environmental engineers, scientists, planners, & management consultants

SCALE:
0 — 0.5 MILES

SOUTHEAST ROCKFORD STUDY AREA

FIGURE NO. 1

I. SITE HISTORY

Groundwater contaminated with volatile organic compounds (VOCs) was initially discovered by the City of Rockford in 1981. Four municipal wells in Southeast Rockford were taken out of service in December 1981 as a result of this contamination. In 1982, the City discovered that additional private wells were contaminated and then closed down more city wells. Contamination of Municipal Well 35, located at Ken Rock Playground, was discovered during a routine sampling of the well in 1984; the well was tested for three priority pollutants and several VOCs were detected.

Because contaminants were present at levels above the Safe Drinking Water Act Maximum Contaminant Levels (MCLs), Municipal Well #35 was taken out of service in 1985. Subsequent analysis of the treated and disinfected water in 1989 indicated that none of the original contaminants were present above the levels of detection; however, the analysis did show the presence of several trihalomethanes at low levels. Trihalomethanes are commonly associated with water disinfection, are not attributable to the groundwater contamination problem in the area and are regulated under the Safe Drinking Water Act, but do not warrant concern for this study because they were detected at levels significantly lower than the MCLs.

The Illinois Environmental Protection Agency (IEPA) reconfirmed that VOCs were present in Southeast Rockford's water in 1984 after receiving a report that plating wastes were being illegally disposed of in a well located at 2613 South Eleventh Street. In October 1984, the Illinois Department of Public Health (IDPH) initiated an investigation that involved sampling 49 private wells in the vicinity of the suspected disposal well. While the investigation did not find significant levels of contaminants common to plating wastes, it did report high levels of chlorinated solvents. These same contaminants were detected in one of the City of Rockford's municipal wells. Further investigation by IDPH indicated extensive contamination in the area. By 1986, IDPH was able to define the contaminated area as approximately 1.2 square miles in Southeast Rockford (the original study area boundaries). Ultimately, IDPH conducted four separate sampling investigations involving residential wells in the Southeast Rockford area: 49 samples collected in 1984, 45 samples in 1985, 17 in 1988 and 204 in 1989. For the most part well locations sampled varied during the separate sampling investigations; however, in some cases, wells were sampled more than once.

Throughout 1989, the U.S. EPA Technical Assistance Team (TAT) sampled residential wells in the Southeast Rockford area and tested for the following VOCs:

- Trichloroethylene (TCE),
- Cis-1,2-Dichloroethylene (cis-1,2-DCE),
- 1,2-Dichloroethane (1,2-DCA),

- 1,1,1-Trichloroethane (1,1,1-TCA),
- Trans-1,2-Dichloroethylene (trans-1,2-DCE) and
- 1,1-Dichloroethane (1,1 DCA).

Fourteen samples were analyzed using gas chromatography/mass spectroscopy (GC/MS) for these compounds and 24 additional VOCs. The U.S. EPA TAT data correlated well with the IDPH data, indicating that the VOC contaminants of concern in the study area consisted of the chlorinated solvents listed above.

U.S. EPA initiated an Emergency Action under which bottled water was offered as a temporary measure to residents whose well water analysis results revealed VOC levels greater than or equal to 25% of the Removal Action Level (RAL). In mid-December 1989, the wells of these residences were equipped with carbon filters as an intermediate solution to the contaminated drinking water. U.S. EPA extended water mains and provided hookups to city water for those residences with private wells contaminated with VOCs at levels greater than or equal to 25% of the RAL.

On July 24, 1989, U.S. EPA notified five companies that it would not invoke the settlement procedure under Section 122 of CERCLA for the RI/FS because, at that time, there was no identified source of the contamination. U.S. EPA continues to investigate the parties responsible for the contamination.

III. SCOPE AND ROLE OF OPERABLE UNIT

The goal of the Operable Unit is to eliminate any present and potential threat to public health. The components of the Operable Unit Remedial Investigation/Feasibility Study included the following:

- To determine the extent of contamination in private wells; and
- To evaluate water supply options for owners of private wells which have levels of contaminants in excess of the MCLs or are potential receptors of VOC contaminated groundwater.

IV. SITE CHARACTERISTICS

The nature and extent of actual or potential contamination related to the study area was determined by collecting groundwater samples from 117 residential, industrial and municipal supply wells within the study area to address data gaps remaining from previous sampling events by U.S. EPA/TAT and the IDPH.

The results of the field investigation indicated a west-northwest trending plume of VOC contaminated groundwater extending across the study area from the vicinity of Reed Avenue and 24th Street to the Rock River. The

contaminant plumes of TCE, 1,1,1-TCA, cis-1,2-DCE, 1,2-DCA, and 1,1-DCA have the same general features. Vinyl chloride and trans-1,2-DCE were detected at only a few locations in the study area. PCE had an isolated, distinctly shaped plume.

Safe drinking Water MCLs were exceeded for TCE, 1,1,1-TCA, cis-1,2-DCE, 1,2-DCA, 1,1-DCE, vinyl chloride and lead, throughout various portions of the study area. The area where the TCE MCL was exceeded encompasses all of the other areas where an MCL is exceeded except for a small area stretching from approximately Harrison Avenue and Kinsey Street to Wills Avenue and Marshall Street, and a single well located near 9th Street and Sandy Hollow Road.

Groundwater contaminated by metals does not show systematic distribution comparable to that observed for VOCs. Instead, localized metals contamination occurs at scattered locations across the study area, and appears to be the result of several unrelated point sources. Only two of the 117 samples collected for the Operable Unit Remedial Investigation exceeded an MCL for any metal.

V. SUMMARY OF SITE RISKS

The purpose of this Operable Unit is to identify residences within the study area which were affected by the groundwater contamination and provide a solution to the water supply problem at those residences under a state-lead action. To determine whether any action was needed, IEPA relied primarily on MCLs developed under the authority of the federal Safe Drinking Water Act.

Due to the fact that no risk assessment is required for an operable unit under the NCP (Preamble, page 8704), risks were characterized by the use of the MCLs. An MCL represents the maximum permissible level of a contaminant in drinking water which is delivered to the consumer's tap and used by the general public, and is a legally enforceable standard. The standards reflect the best achievable levels considering the occurrence, relative source contribution factors, monitoring capability, cost of treatment, available technology and health effects.

For the VOCs analyzed in this investigation, the MCLs are numerically equivalent to the proposed Illinois Groundwater Quality Control (35 Admin. Code 620) for Class I Potable Resource Groundwater (Section 620.301). The proposed Illinois Groundwater Quality criteria are more restrictive than the MCLs for arsenic and cadmium, equivalent to the MCL for lead and less restrictive than the MCL for chromium. The proposed MCLs were only used when the final MCLs were not available.

Contamination was detected above the MCL for one or more contaminants in 25 of the 117 wells sampled. Contamination was detected at levels below MCLs at 60 of the 117 wells sampled. All but one of these wells is located west of 11th Street. The frequency of detection above MCLs is shown below for each contaminant.

Excess lifetime cancer risk levels at a number of these wells are significantly greater than generally accepted cancer risk limits. Risks incurred as a result of exposure to non-carcinogenic contaminants in these wells may be significant if dose summation is assumed.

CONTAMINANT	NO. OF WELLS DETECTED ABOVE MAXIMUM CONTAMINANT LEVEL
TCE	22
1,1-DCE	11
PCE	9
1,1,1-TCA	2
1,2-DCA	2
cis-1,2-DCE	2
Vinyl Chloride	1
Lead	2

The pattern of contamination detected represents typical transformation pathways for volatile chlorinated aliphatic chemicals. Trichloroethylene (TCE) was detected at 53 of the 60 wells where contaminants were detected at concentrations below MCLs. In many cases, TCE was detected in combination with either a possible precursor, PCE or its breakdown products, cis-1,2-DCE or 1,1-DCE. TCE and 1,1,1-TCA, contaminants that are not associated via their transformation pathways, were also frequently detected together.

At fifteen of the 60 wells which exceeded the MCLs only one contaminant was detected. In nine of these cases TCE was the sole contaminant detected, although PCE, cis-1,2-DCE and 1,1,1-TCA were also detected as sole contaminants. In many of these wells only one carcinogenic substance and one non-carcinogenic substance comprised the mixture of contaminants detected. Also, at 22 of these 60 wells, the mixture of contaminants consisted of TCE and 1,1,1-TCA only.

The plume of contamination, as defined in the Operable Unit RI, includes the areas within which an MCL for one or more of the target compounds has been exceeded and, in some areas, a "buffer zone," which consists of those areas between the last well sampled showing contamination above MCLs and the first well sampled that was found below the MCLs. This buffer zone allows for uncertainties inherent in the position of the plume boundaries; the potential exists that the wells within the buffer zone are/or may be contaminated at levels in excess of MCLs. The buffer zone boundary attempts to follow street boundaries where possible.

VI. SUMMARY OF ALTERNATIVES

The Feasibility Study (FS) identified and evaluated alternatives during the Operable Unit that could be used to address the threats to the study area. The evaluation criteria consisted of: (a) protection of human health and the environment; (b) short-term effectiveness; (c) long-term effectiveness; (d) reduction of toxicity, mobility and volume of contaminants; (e) implementability; (f) cost; (g) compliance with

applicable or relevant and appropriate requirements (ARARs); (h) Agency acceptance; and (i) community acceptance.

The alternatives evaluated for addressing the water supply options for owners of private wells which have levels of contaminants in excess of the MCLs are discussed below.

Alternative 1 - Connection of affected residences to the Rockford water system.

-Estimated Construction Cost: $3,280,000

-Estimated Annual Operation and Maintenance (O&M) Cost:
(Years 1-5) $436,800
(Years 6-30) $ 58,800

- Estimated Total Present Worth Cost (5%, 30 yr. life) $5,820,000

- Estimated Implementation Time-frame: 6 months

Under this alternative all 243 targeted addresses (Table 1) identified in the FS Report would be connected to city water. This would include construction of new water mains and service connections where no water mains currently exist and installation of service connections between already existing water mains and target addresses who are not connected to the utility. This alternative also includes the construction of a granular activated carbon water treatment facility at the existing Municipal Well #35. The treatment of Municipal Well #35 is necessary in order to allow the city to provide sufficient water supply during periods of peak demand. This alternative would achieve the Safe Drinking Water Act MCLs, and the water quality in the distribution system would be controlled by the Rockford Water Utility's extensive monitoring program.

It was determined that there are 243 homes within the plume that should be connected to the City water system. Although many of these homes do not currently exceed MCLs, they may in the future exceed these levels since they are within what IEPA and U.S. EPA have considered part of the buffer zone. It is likely that a future remedial action for the site will include connecting these homes to the City water system, and it is more cost efficient to do so now; consequently, these homes will be connected as part of this Operable Unit. Including these homes in this action will alleviate any risk to public health which may exist prior to implementation of the final remedy, while the RI/FS is being conducted, a period which could be as long as five years.

Alternative 2 - Construction of new residential water wells.

- Estimated Construction Cost: $5,290,000

- Estimated Annual O&M Cost: $ 109,400

Table 1. Target Addresses
Known Wells in Proposed Area of Public Water Supply Hookups

Street	Street No.
4th	2819
4th	2828
4th	2833
4th	2901
4th	3035
4th	3045
7th	3210
7th	3214
7th	3237
8th	2810
8th	2904
8th	2914
8th	2918
8th	2922
8th	2926
8th	2929
8th	2932
8th	2938
8th	3202
8th	3205
8th	3214
8th	3219
8th	3221
8th	3225
9th	3201
9th	3213
9th	3217
9th	3225
9th	3229
11th	2613
11th	2635
11th	2837
11th	2926
17th	3002
17th	3004
17th	3006
17th	3008
17th	3010
17th	3012
18th	3007
18th	3023
20th	2923
20th	3010
20th	3021
23rd	3021
Alton	2114
Alton	2118
Alton	2132
Alton	2136
Barry	603
Barry	607
Bildahl	3329
Bildahl	3333
Brooks	104
Brooks	106
Brooks	108
Brooks	110
Brooks	126
Brooks	131
Brooks	138
Brooks	146

Street	Street No.
Brooks	148
Brooks	154
Brooks	204
Brooks	208
Brooks	411
Brooks	823
Cannon	2637
Cannon	2904
Cannon	2910
Cannon	2914
Cannon	2915
Cannon	2918
Cannon	2921
Cannon	2922
Cannon	2925
Cannon	2929
Cannon	2934
Cannon	2938
Cannon	2939
Cannon	3004
Cannon	3008
Carlson	3005
Carlson	3006
Carlson	3007
Carlson	3008
Carlson	3104
Carlson	3108
Carlson	3113
Carlson	3115
Carlson	3119
Carlson	3121
Carlson	3123
Chapman	3007
Collins	2801
Collins	3201
Collins	3202
Collins	3209
Collins	3212
Collins	3216
Collins	3216.5
Collins	3221
Collins	3226
Collins	3229
Faland	2703
Faland	2800
Hanson	2633
Hanson	2901
Hanson	2902
Hanson	2906
Hanson	2907
Hanson	2911
Hanson	2913
Hanson	2917
Hanson	2921
Hanson	2922
Hanson	2930
Hanson	2938
Hanson	2946
Hanson	3000
Horton	2703
Horton	2710

Street	Street No.
Horton	2714
Horton	2717
Horton	2722
Horton	2725
Horton	2726
Horton	2729
Horton	3001
Horton	3033
Horton	3037
Kinsey	2614
Kinsey	2642
Kinsey	2901
Kinsey	2906
Kinsey	2907
Kinsey	2909
Kinsey	2910
Kinsey	2917
Kinsey	2920
Kinsey	2921
Kinsey	2924
Kinsey	2929
Kinsey	2930
Kinsey	2938
Kinsey	2946
Kinsey	3002
Kishwenicon	2929
Kishwenicon	3037
Lapey	2838
Lapey	2845
Lapey	2909
Lapey	2911
Lapey	2918
Lapey	2930
Lindberg	2610
Lindberg	2612
Lindberg	2618
Lyle	3319
Marshall	2641
Marshall	2645
Marshall	2704
Marshall	2705
Marshall	2706
Marshall	2710
Marshall	2711
Marshall	2713
Marshall	2716
Marshall	2717
Marshall	2721
Marshall	2722
Marshall	2730
Marshall	2933
Marshall	2934
Marshall	2937
Marshall	2938
Marshall	2941
Marshall	2942
Marshall	2945
Marshall	2946
Marshall	3006
Marshall	3013
Marshall	3014

Street	Street No.
Marshall	3017
Marshall	3018
Marshall	3022
Marshall	3025
Marshall	3030
Marshall	3031
Marshall	3034
Marshall	3038
Marshall	3039
Marshall	3041
Marshall	3042
Martin	438
Mattis	803
Mattis	816
Mattis	827
Mattis	835
New Milford	606
New Milford	608
Potter	2909
Potter	2929
Potter	2933
Potter	2935
Ranger	801
Ranger	823
Reed	1825
River Blvd.	3002
River Blvd.	3007
River Blvd.	3010
River Blvd.	3019
River Blvd.	3107
River Blvd.	3109
River Blvd.	3114
River Blvd.	3118
Sawyer	604
Sewell	2646
Sewell	2702
Sewell	2706
Sewell	2718
Sewell	2720
Sewell	2914
Sewell	2916
Sewell	2917
Sewell	2921
Sewell	2922
Sewell	2925
Sewell	2929
Sewell	2930
Sewell	2934
Sewell	2938
Sewell	2941
Sewell	2942
Sewell	3002
Sewell	3005
Sewell	3006
Sewell	3010
Sewell	3016
Sewell	3020
Sewell	3026
Sewell	3030
Sewell	3032

- Estimated Total Present Worth Cost (5%, 30 year life): $6,970,000

- Estimated Implementation Time-frame: 18 months

Under this alternative, new residential wells would be constructed at all target addresses. All wells would derive groundwater from the St. Peter Sandstone aquifer. The well depth for each well, on an average, would be 260 feet deep. Assumptions are that this aquifer would provide an adequate supply of drinking water of acceptable quality, and that the new wells could be constructed such that they would not provide a conduit for leakage of contamination from the upper sand and gravel aquifer to the St. Peter.

Alternative 3 - Point of entry (POE) water treatment devices.

- Estimated Construction Cost: $ 850,000

- Estimated Annual O&M Costs: $ 1,129,000

- Estimated Total Present Worth Cost (5%, 30 year life) $18,250,000

- Estimated Implementation Time-frame: 18 months

Under this alternative, individual treatment units would be installed at each address and would treat the raw well water prior to its delivery to the household distribution piping. Treatment of VOCs is usually performed by installing granular activated carbon filters which absorb the VOCs directly from the water flow. This technology can be expected to give reliable performance over extended periods of time but does require intermittent maintenance and testing throughout the life of the installation. This alternative would provide potable drinking water for each property served by POE treatment.

Alternative 4 - No Action

- Estimated Construction Cost: $ 0

- Estimated Annual O&M Costs: $ 0

- Estimated Total Present Worth Cost (5%, 30 year life) $ 0

- Estimated Implementation Time-frame: Immediate

This alternative involves no remedial action for owners of private wells in the study area. This alternative will not reduce the threats to human health and/or the environment at the site. The inclusion of the no-action alternative is statutorily required.

VII. SUMMARY OF COMPARATIVE ANALYSIS OF ALTERNATIVES

The remedial alternatives developed during the development of the Southeast Rockford Groundwater Contamination Feasibility Study were evaluated by U.S. EPA and IEPA using the following nine criteria. The advantages and disadvantages of each alternative were then compared to identify the alternative providing the best balance of these nine criteria.

1. **Overall Protection of Human Health and the Environment** addresses whether or not an alternative provides adequate protection for human health and the environment and describes how risks are eliminated, reduced or controlled through treatment and engineering or institutional controls.

2. **Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)** addresses whether or not an alternative will meet all of the applicable or relevant and appropriate requirements or provides grounds for invoking a waiver. CERCLA requires that remedial actions meet legally applicable or relevant and appropriate requirements of other environmental laws. A "legally applicable" requirement is one which would legally apply to the response action if that action were not taken pursuant to Sections 104, 106 or 122 of CERCLA. A "relevant and appropriate" requirement is one that, while not "applicable", is designed to apply to problems sufficiently similar such that their application is appropriate.

3. **Long-term Effectiveness and Permanence** refers to the ability of an alternative to maintain reliable protection of human health and the environment, over time, once clean-up objectives have been met.

4. **Reduction of Toxicity, Mobility or Volume** is the anticipated performance of the treatment technologies an alternative may employ.

5. **Short-term Effectiveness** involves the period of time needed to achieve protection and any adverse impacts on human health and the environment that may be posed during the construction and implementation period until clean-up objectives are achieved.

6. **Implementability** is the technical and administrative feasibility of an alternative, including the availability of goods and services needed to implement the solution.

7. **Cost** includes capital costs as well as operation and maintenance costs.

8. **Agency Acceptance** indicates whether, based on its review of the Operable Unit Remedial Investigation/Feasibility Study and

Proposed Plan, U.S. EPA and IEPA agree on the preferred alternative.

9. **Community Acceptance** indicates the public support of a given alternative. This criteria is discussed in the Responsiveness Summary.

A. Overall Protection of Human Health and the Environment

Alternatives 1 and 3 would provide adequate protection of human health by eliminating, reducing or controlling risk through treatment or engineering controls. Alternative 2 cannot guarantee protection over the long term, and Alternative 4, No-Action does nothing to increase protection of human health. None of the alternatives will remove the contamination threat to the environment; this is to be addressed in future actions at the site.

B. Compliance with ARARs

Alternative 1 and Alternative 3 would be in compliance with MCLs (40 CFR 141) and Proposed Illinois State Groundwater Standards (35 Admin. Code 620.301), which are "to be considered" standards, as a result of water treatment. Compliance with MCLs will not be guaranteed under Alternative 2 as the potential for future contamination will remain, and this alternative does not consider water treatment. Compliance would not be achieved under Alternative 4. Alternative 1, as a result of the use of activated carbon for treatment, would meet applicable RCRA regulations for the disposal of the spent carbon (40 CFR 264). Alternatives 1, 2 and 3 would require that construction be conducted in adherence with OSHA regulations, 29 CFR 1910.120 and 29 CFR 1926.

The alternatives compared within this ROD represent an interim measure as defined in the NCP (300.430 (f)(ii)(C)(1)) and will become part of the total remedial action which will ultimately attain applicable or relevant and appropriate Federal and State requirements, or will provide justification if either Federal or State standards are waived. Therefore, no cleanup standards for the contamination plume will be established at this time.

C. Long-term Effectiveness and Permanence

Alternative 1 would reduce long term risk to the target population as the water quality will be controlled and the water supply regulated. The Rockford Water Utility has an extensive monitoring program designed to control the water quality in the distribution system. Under Alternative 2, risk reductions are unknown over the long term; no control over the water quality with this alternative is provided. However, although Alternatives 1 and 2 provide little

or no long-term protection of the environment, this would be addressed in the final remedy and Record of Decision for the site. Long-term risk could be eliminated under Alternative 3, as control over water quality would be provided through the regular monitoring of treated water and proper management of spent carbon. Alternative 4 does not provide for risk reduction or control of water quality.

D. Reduction of Toxicity, Mobility or Volume of Contaminants

Alternatives 1 and 3 provide for treatment of contaminants using granular activated carbon (GAC). Adsorption onto the GAC media will reduce the mobility of the contaminants. If the GAC media is regenerated, there will be destruction of the contaminants, thereby providing a reduction in the toxicity and volume of these contaminants. Alternatives 2 and 4 do not provide any reduction in toxicity, mobility or volume of contaminants. The final ROD will identify methods to reduce toxicity, mobility and volume of contaminants in the groundwater or in any areas that may be discovered.

E. Short-Term Effectiveness

Alternative 1 will take, after development of the Remedial Design, approximately six months to hook-up residences to the Rockford water system and four months to complete the treatment facility for Municipal Well 35 which will be done concurrently with the main hook-ups. No short-term impacts to the health of the construction workers or the community should occur during the construction activities due to the fact that all construction will occur above the level of groundwater contamination.

Under Alternative 2 construction of all new wells should be completed within 18 months of remedial design completion. Workers involved in the construction of these new wells could potentially be exposed to contaminants during the drilling process; however, exposures should be minimized due the statutory requirements of work to be done under an approved Health and Safety Plan which will require the use of protective clothing and respiratory equipment.

Under Alternative 3, installation of the POE treatment units would be completed within 18 months after the completion of the installation plans, although some units could be installed before design completion. The installation process should not result in any short-term health impacts for homeowners; however, workers installing the units could be minimally exposed to contaminants during the installation process.

The No-Action Alternative would not result in any short-term health or environmental impacts.

F. Implementability

The materials, labor and equipment needed to implement Alternatives 1, 2 and 3 are generally readily available, and construction/installation techniques are routine. Some possible disturbances and/or inconveniences could be experienced by the community or homeowners normal to the implementation of these three alternatives.

G. Cost

Costs for the Preferred Alternative as well as the other considered alternatives are as follows:

Alternative 1 (preferred alternative)	$ 5,820,000
Alternative 2	$ 6,970,000
Alternative 3	$18,250,000
Alternative 4 (no-action)	$ 0

The preferred alternative, when compared to the other alternatives for meeting the comparative criteria, is the most cost effective alternative.

H. Support Agency Acceptance

The United States Environmental Protection Agency supports the preferred alternative.

I. Community Acceptance

Community acceptance of the preferred has been very favorable. All comments, written and oral, compiled during the Public Comment Period for the Operable Unit RI/FS and Proposed Plan as well as Agency responses are listed in the enclosed Responsiveness Summary.

VIII. SELECTED REMEDY

Based upon the information developed in the Operable Unit RI/FS, as well as a comparative analysis of the remedial alternatives with the nine criteria, the Agencies have selected Alternative 1 as the appropriate remedy for the Southeast Rockford Groundwater Contamination Operable Unit.

The preferred alternative is comprised of the following main features:

The construction of new water mains within the targeted areas where no water mains currently exist with the connection of these new water mains to the existing Rockford Water Utility mains;

The installation of service connections between the new water mains and the targeted addresses (table 1), including the necessary plumbing at the targeted addresses, which do not currently have access to municipal water;

The installation of service connections between the water mains and targeted addresses, including the necessary plumbing at targeted addresses, in areas where Rockford Water Utility water mains already exist but targeted addresses are not connected to the utility;

The treating of the well water pumped at the existing Municipal Well #35 which had been taken out of normal service due to VOC contamination, to achieve drinking water standards, and the discharge of the treated water into the Rockford distribution system (this well only to be utilized during peak demand hours) and

The abandonment of existing private wells at the target addresses which accept hook up to public water

The cost breakdown of the preferred alternative is as follows:

21,000' Water Main and Fittings		$1,260,000
Service Connections with Pre-existing Mains		192,000
Service Connections to New Water Mains		58,800
Water Meters		36,500
Residential Well Abandonment		68,000
Treatment Facility Structure at Municipal Well #35		207,000
Site Work and Piping at Treatment Facility		250,000
Demobilization		100,000
Contingency (20%)		$ 434,000
Engineering Design (8%)		209,000
Supervision and Administration (8%)		225,000
Construction Engineering (8%)		243,000
Annual Costs		
Pumping Costs (years 1-30)	$ 58,800	
Carbon (years 1-5)	210,000	
Process Tankage Lease Payments	168,000	
Total (years 1-5)		$436,800
(years 6-30)		58,800
Total Present Worth (present worth + capital costs)		
(at 2%)		$6,380,000
(at 5%)		$5,820,000
(at 10%)		$5,300,000

IX. STATUTORY DETERMINATIONS

The remedial actions that are undertaken at Superfund sites must achieve adequate protection of human health and the environment. In addition, Section 121 of CERCLA established several other statutory requirements and preferences. These specify that when complete, the selected remedial action for this site must comply with applicable or relevant and appropriate environmental standards established under Federal and State environmental laws unless a statutory waiver is justified. The selected remedy also must be cost-effective and utilize permanent solutions and alternative technologies to the maximum extent practicable. Finally, the statute includes a preference for remedies that employ treatments which permanently and significantly reduce the volume, toxicity or mobility of hazardous wastes as their principal element. The following sections discuss how the selected remedy meets these statutory requirements.

Protection of Human Health and the Environment

The selected remedy protects human health by eliminating the exposure of affected residences through the connection to the City of Rockford municipal water supply system and the abandonment of contaminated private wells. The selected remedy is an interim action; consequently, protection of the environment will be addressed in a subsequent Record of Decision.

Compliance with Applicable or Relevant and Appropriate Requirements

The selected remedy will comply with all applicable or relevant and appropriate requirements. Maximum Contaminant Levels, as defined in the Safe Drinking Water Act (40 CFR 141), are an ARAR for this action. All construction activities will be conducted in compliance with OSHA regulations, 29 CFR 1910.120 and 29 CFR 1926. The only State ARARs, the proposed Illinois State Groundwater Standards, are not yet promulgated, and are categorized as "To Be Considered".

Cost-Effectiveness

The selected remedy is cost-effective because it has been determined to provide overall effectiveness proportional to its costs, the net present worth value being $5,820,000 (5%, 30 year life). The selected remedy is the least costly of the alternatives evaluated, and yet provides the highest degree of protection of human health.

Utilization of Permanent Solutions and Alternative Treatment Technologies (or Resource Recovery Technologies) to the Maximum Extent Practicable

The State of Illinois and U.S. EPA have determined that the selected remedy represents the maximum extent to which permanent solutions and treatment technologies can be utilized in a cost-effective manner for this Southeast Rockford Groundwater Contamination Site

Operable Unit. The selected remedy is a permanent solution to the human health threat. However, because of the limited scope of this action, alternative treatment technologies or resource recovery technologies were not considered. These options will be evaluated in later investigations, and discussed in a subsequent Record of Decision.

Preference for Treatment as a Principal Element

The selected remedy deals only with the threat to public health resulting from contaminated drinking water. There will be some treatment of contaminated groundwater as a side benefit to the GAC unit on Municipal Well #35. This well will only be used in emergency situations, but when the GAC unit is activated, treatment of this limited amount of groundwater will be occurring. The preference for treatment as a principal element will be more completely addressed when options for remediating the contaminant plume are discussed in a subsequent Record of Decision.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF:	)	
SOUTHEAST ROCKFORD	)	IEPA File #12-91
GROUNDWATER CONTAMINATION	)	
OPERABLE UNIT/PROPOSED PLAN	)	

SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION
RESPONSIVENESS SUMMARY
OPERABLE UNIT FEASIBILITY STUDY AND PROPOSED PLAN
MAY, 1991

I. Overview.

In March of 1989, an area in southeast Rockford bounded by Harrison Avenue, 21st Street, Sawyer Road and 8th street was placed upon the National Priorities List because of contaminants from an unknown source or sources found in private wells and Rockford Municipal Well #35. The National Priorities List is a list of hazardous waste sites eligible for investigation and cleanup money through the federal Superfund law.

In the summer of 1989, the United States Environmental Protection Agency (U.S. EPA) Emergency and Enforcement Response Branch conducted an emergency action to evaluate which residences had wells with contamination high enough to pose a possible health threat from short term exposure. Subsequently, the U.S. EPA Emergency and Enforcement Response Branch provided bottled water, water filters, and then public water hookups to approximately 280 identified residences. The U.S. EPA was responsible for community relations during the Emergency Response Action.

In the summer of 1990, the Illinois Environmental Protection Agency (IEPA) conducted a Remedial Investigation for an operable unit (one part of an overall action) to evaluate the number of private wells which had lower levels of contamination but still violated the public water supply standards. This investigation focused on an area bounded by Harrison Avenue, 24th Street, Sandy Hollow Road and the Rock River.

This investigation was followed by a study of alternative remedies for residences with private wells which violate or potentially violate the public water supply standards. The Proposed Plan study designated connection to the Rockford public water supply as the alternative preferred by the IEPA

and the U.S. EPA for private wells in the study area that violate public water supply standards, are used for a drinking water supply, and the water is not "sold" in a business such as a restaurant or a tavern. Included in this list are wells in a buffer zone which either have not been tested or which may be in the path of groundwater flow. This alternative includes treatment of Municipal Well #35 with a granular activated carbon treatment unit to remove volatile organic compounds so that the well can be used to supply peak demand.

In accordance with CERCLA Section 117, the IEPA held a public comment period from March 16, 1991 to 5:00 PM on April 23, 1991 for interested parties to comment on a drinking water remedy for the Southeast Rockford Groundwater Contamination Operable Unit Feasibility Study and Proposed Plan. At the public hearing held on April 17, 1991 IEPA presented the Proposed Plan for the site and received public comments on the drinking water alternatives and answered questions.

Although a few residents question the requirements for plugging their wells and annexation into the city as conditions for public water connection, most residents support connection to the public water supply as the preferred alternative. The main area of dissension appears to be among residents with wells who were not on the list for public water connection.

These sections follow:

* Background on Community Involvement;
* Summary of Public Comments, Questions and IEPA Responses Received during Public Comment Period;
* For More Information; and
* Attachment: Community Relations Activities at Southeast Rockford Groundwater Contamination

II. Background on Community Involvement

The IEPA has been responsible for conducting community relations during the investigation for the drinking water operable unit and will be responsible for community relations during the remedial investigation and feasibility study into the source of contamination. The U.S. EPA Emergency Response Branch will be responsible for the construction of the water main.

The site first came to the attention of the IEPA with a citizen's complaint of dumping plating waste in an abandoned

well. Subsequent tests did not detect plating waste in nearby private wells but chlorinated solvents commonly used in industry for such things as degreasing machinery. A meeting held in 1985 by Illinois Department of Public Health and the IEPA drew a crowd of approximately 200, but ongoing concern did not seem to surface until the site was placed on the National Priorities List in 1989 and banks began refusing home mortgage and improvement loans in the area. Since that time community concern has remained strong. The main issues are summarized below:

ISSUE # 1. Some of the residents reject the public water supply alternative because this alternative may mean that the whole area will be annexed into the city. Annexation is undesirable to these residents for several reasons including higher taxes. Since most residents appear to prefer public water, those who decline may still be annexed since their property may be surrounded by city property.

ISSUE #2. Some residents not recommended for public water hookup contend that the hookup should include their houses as well since either their well was not tested or groundwater movement in the future could contaminate their wells at levels violating the public water supply standards.

ISSUE #3. Some residents not recommended for hookup ask that their houses be hooked up to the public water supply, since they have been designated as part of the federal Superfund study area. This designation reportedly has made it difficult to obtain loans for home improvement or for mortgages.

ISSUE #4. Some residents expressed concern that the source of contamination be found and cleaned up as quickly as possible.

ISSUE #5. Many residents expressed support for the proposed plan and indicated that they were eager for construction to be completed this year.

III. Summary of Public Comments and Questions and Agency Responses

The main issues raised during the public comment period are summarized below. These issues are reflected in the transcript of the public hearing. The following categories include the summarized responses to the above issues.

1. Health effects

2. Sampling

3. Connection to the public water supply

4. Annexation to the City of Rockford

5. Concerns about specific wells excluded from the list proposed for public water hookups.

6. Treatment of municipal well #35

7. Point of entry water treatment for private wells

8. Real estate sales and property values

9. Investigation into the source of contamination

10. General

The comments are paraphrased in order to effectively summarize them in this document. The reader is referred to the public meeting transcript which is available at the public information repositories located at the Ken Rock Community Center (3218 South 11th Street) and the Rock River Branch of the Rockford Public Library (3134 South 11th Street).

HEALTH EFFECTS

Question: I have been drinking water that has violated public water supply standards. What health problems should I expect?

Response: The concentrations that people are now drinking are not high enough to cause health effects in the short-term. Those residents whose wells had concentrations that were high enough to be of concern for short-term exposure have been given filters or have been hooked up to the public water supply. In addition, we have no documented cases in Rockford of residents becoming ill from drinking the well water with low levels of contaminants. We have enough information to suggest that there may be some health effects if this contaminated water is consumed over a lifetime of approximately 70 years. If you have concerns about potential health effects, you should share information about your exposure with your doctor.

Question: Will citizens receive bottled water or water filters until the public water main is connected?

Response: No. Concentrations are low enough to not pose a health threat from a short-term exposure so there is no need for the state or federal government to provide protection until the water main is connected. Short-term in this context means several years. The health concern about these low concentrations are from a lifetime of 70 years exposure. If residents feel uncomfortable drinking the water until the water main extension is completed, they may buy their own bottled water or filters, but the state or federal government will not reimburse the cost.

Question: You say my water now meets public water supply standards but that you will resample next year. Will my health be harmed if contaminants in my water should increase next year to the point of violating the public water supply standards?

Response: No. The contaminants should not reach a concentration that would be high enough to cause health problems in this short time frame. Public water standards are set to be protective over a lifetime of seventy years. Concentrations that exceed these standards by only a small amount are not considered harmful in the short-term.

Question: My house is not scheduled for hookup but is next to a house that is scheduled for hookup. Are you saying that my water is safe to drink?

Response: Yes. The IEPA allowed a buffer zone when drawing the line for hookups. Those outside the zone have water that is in the area demonstrated to meet public water supply standards. In 1992, the IEPA will resample select wells along the border to determine whether the contamination has spread causing additional wells to be in violation of the public water supply standards.

Question: Is there a potential health threat from bathing in the water or from kids running through the lawn sprinkler? I have a 10 month old baby that I bathe in water that violates the public water supply standard. Is that safe?

Response: There is no health threat from bathing in the water. Those residents who are now using the water and are waiting for an alternate supply, have wells which violated public water supply standards only slightly. The public water supply standards are set to protect people who consume this water for a lifetime, or approximately 70 years. Therefore, your water is safe to use for the short period of time until you will receive an alternate supply.

Question: Is the water safe to water vegetable gardens?

Response: Yes. Most of the chemicals found in the water will evaporate when exposed to air, so there is little threat of the chemicals accumulating on the vegetables.

Question: What is the status of health studies in the area?

Response: The U. S. Agency for Toxic Substances and Disease Registry has registered residents from Winnebago, Boone, and Ogle counties who have documented exposure to trichloroethene in groundwater. Persons on the registry will be interviewed once a year about their health, and this data will be compiled over time to determine if there is any common long-term trend in health problems in people exposed to trichloroethene.

SAMPLING

Question: My house is located beyond the boundaries of those being hooked up to public water and my well was not tested. My well is deeper than my neighbors. How do I know that my well is not contaminated or will not become contaminated in the future?

Response: The sample locations of the wells were spaced in such a manner that would allow evaluation of the wells not sampled. In addition, next year the IEPA will sample select wells outside of the hookup area to evaluate whether additional wells may violate public water supply standards and thus be eligible for public water hookup in the future.

Comment: I would like my well (3237 Collins) tested now instead of waiting until 1992. The water main will stop in the middle of the block which makes no sense, since my well has never been tested. 3018 Bildahl would also like their well tested before 1992.

Response: At this time, until investigations delineate the area of the plume, no residential sampling is planned until phase II investigations are initiated sometime in 1992. Private well water in the vicinity of 3237 Collins and 3018 Bildahl has been tested and results indicate that the water meets public water supply standards.

Comment: I just moved to 2938 Hanson and would like to have my well tested.

Response: Since you are on the list for hookup to the public water supply and since water in your area has not been shown to pose an immediate health risk, the IEPA will not test your water. The U.S.

EPA plans to connect your residence to public water by the end of 1991.

Question: Will the contamination plume spread out when the private wells now pumping are removed from service because of the public water hookup?

Response: The additional sampling planned for 1992 by IEPA will detect changes in the plume which may occur due to the abandonment of private wells.

Question: What chemicals were the samples analyzed for?

Response: The samples were analyzed for nine volatile organic compounds, most of which are commonly used industrial solvents, and for four metals. Most of the chemicals tested for had been detected previously in private well samples and municipal well samples in the southeast Rockford area. Samples were not analyzed for bacteria or nitrates. If residents are concerned about bacteria or nitrates, they should contact the Winnebago County Health Department.

Question: Do these volatile organic compounds have an odor or taste?

Response: These chemicals usually do not have a odor or taste at the concentrations found in drinking water.

Question: How can you be sure you tested my well (3133 7th Street) for the right contaminants? It is next to a drainage ditch in which I have seen several different types of contaminants including oil and a red material.

Response: According to the IEPA Rockford Regional Field Office the reddish liquid that is being seen in the drainage ditch is most likely water that is being flushed from the water mains and hydrants, which contains high levels of iron. They stated that many times this water will almost look like "blood" when it is released within these drainage ways. It is also very unlikely that any of the materials could possibly enter your drinking water as the ditch is cement lined, even though cracked, very little water from the ditch could ever enter the groundwater. Sampling of residents is part of future investigations and tentative plans to sample residential wells is scheduled for 1992.

Comment: The map in the Rockford Journal Star shows the affected area bounded by the west by 11th Street. Is this correct?

Response: No. The area sampled extended west to the Rock River and was bounded by Harrison Avenue, Sandy Hollow Road, and the 24th Street. The expanded study area boundaries are 1.25 miles east of Alpine, Harrison Avenue, Sandy Hollow Road and the Rock River.

Comment: I have two wells in the new addition to the study area (3916 Sandy Hollow and 3844 Sandy Hollow). Should they be tested?

Response: Plans for testing wells within the newly defined areas are part of the future investigations. The Phase I investigation, which is due to start this summer will attempt to delineate the horizonal extent of the contamination, will identify those residences overlying the plume. At that point, most likely mid 1992, the next phase of investigation will most likely include residential well sampling to confirm this potential contamination.

CONNECTION TO THE PUBLIC WATER SUPPLY

Comment: How did the IEPA arrive at $5,820,000 as the estimated cost for the proposed plan.

Response: The Feasibility Study, which outlines the specifics of the proposed alternative, contains breakdowns and explanations of the costs for each considered remedy. These documents can be found in the Public Repositories located at the Ken Rock Community Center (3218 South 11th Street) and the Rock River Branch of the Rockford Public Library (3134 South 11th Street).

Comment: I went to the Water Department and they said that the map in the fact sheet is not the most recent version.

Response: Maps delineating the extent of contamination have not changed from the fact sheet. The maps containing future water mains and line hookups, however, are, at this point, tentative. These installation maps will not be finalized until contractors have been secured and their work plans finalized. Due to the amount of work to be done during the city water hook ups, it would be very difficult, at this time, to say for certain where specific piping will go.

Question: I am not included in this round of hookups. In the future, will you ever pay for public water for my residence?

Response: In 1992, the IEPA plans to conduct an additional round of private well sampling along the border of the proposed area of public water hookups. If additional wells violate the public water supply standard for the chemicals of concern, these wells will be

eligible for the public water supply hookup under this program also.

Question: If I chose to hook up to City Water, will I have to plug my well?

Response: Yes. Old wells are a common pathway of contaminants to the aquifer (underground water) which supply drinking water for the Rockford Area. Plugging these wells helps protect the aquifer, so all residents who hook up to city water will be required to plug their wells. In addition, plugging wells is an assurance that residents will not be exposed to the contaminants in the future. State and federal funds will pay for the cost of plugging wells at residences receiving public water hookup through the Superfund program.

Question: I have two wells but only use one. Will you plug both wells?

Response: The U.S. EPA's policy is to only plug one well per residence, the well which is being utilized for drinking water. If an addition well exists, however, that poses a potential threat to the public or existing aquifers through cross contamination, it will be considered by the Agencies for abandonment also.

Comment: I do not like the taste of City water, because it tastes of chlorine.

Response: City water may taste of chlorine, but it is safer to drink than well water that tastes good and contains industrial solvents at levels violating the public water supply standard .

Question: How often is city water tested for the industrial solvents found in the water?

Response: Effective July 1 of this year, once contamination has been found or suspected, the City is required to sample water from a specific location quarterly until the specific constituents are no longer detected.

Question: I paid for hookup to the public water system last year. Will the Superfund reimburse me for that cost?

Response: No. Federal law explicitly forbids the use of Superfund money to reimburse citizens for cost they have incurred on their own.

Question: Will you repair my lawn after digging it up for the water main?

Response: Yes

Question: How much will the hookup cost the resident?

Response: If your residence is on the list for public water hookup, Federal and State Superfund money will pay for the water main down the street, for the connection between the street and the house, for the water meter and for plugging the private well. The City of Rockford has agreed to waive the hookup fee. The resident's expense will be the cost of interior modification to plumbing, if needed, and the monthly water bill to the City of Rockford.

Question: Will businesses with contaminated water be hooked up to the public water supply through the Superfund program?

Response: Businesses who use private well water only for employee consumption will be hooked up to the public water supply at federal expense. Businesses who "sell" the water, such as restaurants and taverns, are not eligible for federally funded hookup to the Rockford public water supply.

Question: How will residents know when to sign up for the public water? Who will receive the notification of public water hookups?

Response: The person who receives the tax bill will receive the notification which will outline the procedure for signing up for the public water.

Question: What if we are out of town during the sign up period?

Response: People who are on the list for public water, will be able to sign up for the water anytime during the construction of the water main, which will be several months.

Question: How long will residents be without water?

Response: Each residence will be without water for only one to two hours during the hook up process.

Comment: During the U.S. EPA Emergency Response action last summer, there was some confusion about scheduling. In addition, there was misinformation about the urgency for people not on the list to pay for the hookup themselves since according to this information, the price would go up in the future. Several people who paid for the cost themselves would have been eligible for a free hookup this year.

Response: This misinformation was not attributable to the Agencies. The Federal On-Scene-Coordinator (OSC), Mr. Ken Theisen, was available at the Ken Rock Center during construction between ten to twelve hours a day, five days a week, and during off hours an answering machine was available for any questions or concerns by the public.

Question: Who should residents contact if they have questions about the water main construction.

Response: The U.S. EPA Emergency Response Branch will probably set up a trailer on the parking lot of the Ken-Rock Community Center (3218 South 11th Street). The on-scene coordinator, Ken Theisen, will be able to be contacted during working hours at that trailer.

Comment: We live on the west end of Brooke, are on the list of hookups but have been told that water main cannot be laid in the area because it is in a floodplain.

Response: The U.S. EPA will still try to lay water main in that area.

Question: Will U.S. EPA repair the existing main on the west end of Brooke Road? It is laid only three to four feet beneath the surface and freezes every winter.

Response: The City of Rockford is aware of this problem and has pledged to rectify it. The water main that the U.S. EPA lays will meet all City specifications including the depth at which it must be installed which is at least six feet.

Question: In some places one side of the street is designated for hook up and the other is not. Wouldn't it be cheaper to hook up both sides of the street when the water main is put down instead of coming back later and hooking up the other side if sampling next year shows that it is contaminated also?

Response: The intention of the Agencies is to hook up those residences who have been found or are believed to have contaminated water. It is not the Agencies' objective to ultimately hook every residence to public water. If a residence does not show contamination levels which violate public water supply standards, this property will not be connected to public water by the Agencies.

Question: If you lay the main down the street, and we are not on the list for hookups, can we hook up to the main at our own cost?

Response: Yes.

Question: Who will oversee the construction of the water main.

Response: The U.S. EPA Emergency Response Branch

Question: Does the City have to approve the water main design?

Response: Yes.

Question: If the Agencies stop the water main two blocks short of Sandy Hollow, will the City require them to loop the main or will they allow a dead end.

Response: In some instances the City will require a loop; however, if this procedure becomes too expensive or impracticable the OSC will request an exemption from this policy.

Question: Will you construct a stub at vacant property?

Response: During last year's action no service connection stubs were installed to vacant lots as this would have been at the City's expense. Again, during this action, it will be up to the City to decide whether to hook up empty lots.

Question: By allowing a dead end, isn't the U.S. EPA allowing the water to become contaminated?

Response: No, these water lines are sealed and no external contamination could enter them. Also, these dead end lines will be periodically flushed by the city water department.

Comment: When is this project scheduled to begin. We have just received a letter from the City stating we will be annexed, and I think we have to connect to City water when we are annexed.

Response: If you are annexed into the City of Rockford and are on the list for hook up by the Agencies, you will not be required to hook up to public water before the Agencies hook you up. You are required to annex into the City of Rockford if you accept a water line hookup from the Agencies, but you are not required to hook up to public water if you choose to annex into the city. However, if an individual who is annexed into the city decides not to be hooked to public water and their well is found to be contaminated they will not be able to obtain a permit to drill a new well on that same property.

Question: When will the final decision on the proposed plan be made.

Response: The decision should be made by late May.

Question: I am outside of your proposed area for hook up and may decide to pay for hookup out of my own pocket. How much will this cost?

Response: Cost of hookup depends upon several variables including whether or not there is a main already down your street and the distance from the property line to your house. The City of Rockford Water Division can tell you whether there is a main down your street. A private plumber can give you an estimate of the cost from the property line to your house. Additional costs are the City's hookup fee and the cost of a water meter.

Comment: There were a number of comments supporting connection to the public water supply as the best alternative for providing safe water to residents for all uses.

Question: Why are you excluding restaurants and taverns from eligibility for public water hookup under your program?

Response: This criterion will be used in order to be consistent with the criteria used by the U.S. EPA during their Emergency Action in Rockford during the summer and fall of 1991.

Question: How will restaurants and taverns provide safe water for their employees and customers.

Response: It will be up to the owners of restaurants and taverns to hook up to public water. If their water is found to violate public water supply standards, they should not be serving this water to their customers.

ANNEXATION INTO THE CITY OF ROCKFORD

Question: Will those who hook up to the City of Rockford be required to be annexed into the City?

Response: Those who sign up for City Water hookup will be required to sign a pre-annexation agreement. This document is an agreement to be annexed into the city when a person's property becomes contiguous or next to city property. The public water system

belongs to the City of Rockford and the City makes this requirement in order to pay for ongoing maintenance of the system.

Question: Has the IEPA and the U.S. EPA conspired with the City of Rockford to make people think their wells are contaminated so that the City can annex the area?

Response: No. The IEPA and the U.S. EPA have no interest in whether or not people are annexed into the City. The purpose of the IEPA and the U.S. EPA is to protect human health and the environment. The recommendation to hook up to city water is based solely on sample results that indicate water from certain wells are a threat to human health.

Question: Why was the farmland north of Lindberg included in the shaded area of the map?

Response: At this time the delineation of the plume has been determined by a limited number of sample points. The location of the plume, therefore, encompasses areas between points of known contamination, and the farmland lies between two of these points and is considered to be part of the area of contamination.

Comment: Several residents on Lindberg Street objected to the inclusion of several houses on that street in the proposed list of homes eligible for public water hookup, because they were afraid that this action would make the whole area vulnerable to annexation into the City.

Response: The IEPA included a house on Lindberg plus two in a buffer zone, because the first well had an industrial solvent which violated the public water standard. In order to be consistent, these houses should be included on the list of proposed hookups, however, residents have a right to refuse a hookup to the public water supply system.

Question: If we are on the list of proposed hookups and decide to refuse the offer, can we still be annexed into the City?

Response: The City decides who they will annex and not the IEPA or the U.S. EPA. However, a state law allows a City to force annexation of parcels less than 60 acres which are surrounded by the City.

Comment: My residence is not on the list of proposed hookups, so must have good water. Nevertheless, the City will annex this property and condemn my well. I think I should be compensated for

losing the use of my well.

Response: Your well will not be automatically condemned if you are annexed into the City although you may be prohibited from drilling a new well if your present well goes bad. The IEPA and U.S. EPA cannot compensate you for the loss of your well and will not provide City water if your well meets public water supply standards.

Question: Why can't we have water main and sewer installed at the same time. This is a waste of taxpayer's money.

Response: The Federal Superfund money, under the law, can only be used to protect public health which has been endangered because of releases of hazardous waste. Extension of the sewer would not meet this criterion. If citizens want sewer, they will have to pay for that expense themselves.

CONCERNS ABOUT SPECIFIC WELLS EXCLUDED FROM THE LIST PROPOSED FOR PUBLIC WATER HOOKUPS

Comment: My mother lives on the corner of 9th Street and Sawyer. Will the IEPA provide for public water hookup. Will you sample her well?

Response: This residence will be hooked up to public water if it is on the list of residences eligible for hook up.

Comment: 3209 7th Street should be on the list since groundwater flows from east to west. You have the line stopping across the street to the east of us, but houses just immediately south of us and to the west are on the list for hookups. The groundwater surely does not flow in the step fashion shown on the map.

Response: The Agencies will consider this residence for hook up during the design of the construction.

Comment: The Illinois Department of Public Health comments that there are several homes in the 2400 and 2500 block of 22nd, 23rd and 25th Streets that should be offered hookups to the Rockford public water supply. They meet the criteria established by the IEPA for hookup in that they exceed the public water supply standard, and the contaminants are the same as those in the wells offered city water indicating the contaminants come from the same source.

Response: If the owners of these residences wish to be hooked up, the Agencies will allow their inclusion on the list of eligible residences for public water hookup. The Agencies will work with the Illinois Department of Public Health to further define the area to be connected to the public water supply.

Comment: The house on 1306 Sandy Hollow that exceeded the public water supply standard for lead should also be on the list of houses to be connected to the public water supply.

Response: The Agencies believe the lead contamination at this residence is not due to the identified plume, and this residence as well as those residences considered for hook up due to this problem are not eligible for City water hookup at this time. The Agencies will continue to investigate the source of the lead, and the possibility exists that this residence may be eligible for hook up to public water by the Agencies in the future.

Comment: 1735 Hamilton had 18.8 ppb lead and should be retested.

Response: The contaminant levels found at this residence were below the public water supply standards; therefore, at this time, this residence will not be considered for retesting or public water hookup.

Comment: 3209 9th Street is located in the shaded area of the fact sheet map but not on the list of target addresses so should be added to the proposed list of hookups.

Response: If 3209 9th Street is a residence it will be eligible for hook up.

Comment: My house at 3218 9th Street (which is not on the list) is reportedly on the same water reservoir as 3217 (which is on the list) so it should be connected to the public water supply also.

Response: If this residence (3218 9th Street) is either on the same side of 9th Street as 3217 9th Street or it is on the same well as 3217 9th Street it will be eligible for public water hookup.

Comment: The five houses with wells in the 300 and 400 block of Brooke Road should be included in the public water hookups since groundwater flows from east to west, and the fact sheet map shows contamination on both the east and the west of these five houses. It would be cheaper to hook up these houses now when the road is torn up than to wait for the houses in the middle to become contaminated.

Response: The Agencies will reconsider these residences for hook up during this round of public hookups. The Agencies will make this determination during the development of construction plans and will notify those residences if it is decided they are eligible for hook up.

Comment: I think there is a well at 404 Barry which is in the shaded area which should be included for hook up. This well may have been hooked up by the U.S. EPA Emergency Response Branch last fall.

Response: If this residence is within the shaded area the Agencies will reconsider this residence for hook up during construction plan development, and the owners will be notified.

Comment: I own two houses on the same well (3037 Marshall and 3039 Marshall). Only one address is listed for hook up. Please add the other.

Response: Both houses, if they are separate residences, will be eligible for hook up.

Comment: We moved the house on 3002 Kinsey (which is recommended for hook up) to a vacant lot at 2905 Potter which is in the shaded area. (The reason for the move is that St. Edwards is constructing a road where the house was). 2905 Potter has no water and we request that this house be put on the list for hookups.

Response: In this case the new location of the house (2905) will be eligible for hook up if this lot is within the contaminated zone, but the now empty lot (3002 Kinsey) will no longer be eligible.

Comment: I am living in a mobile home at 3003 18th Street which is in the shaded area. We have a community well and I think we should be on the list for hookups to the public water supply.

Response: The Agencies will investigate this issue and if it is found that this residence is within the shaded area and on well water, it will be considered for public water hookup.

Comment: I have had a mobile home at 2941 Horton for thirty years which was on the same well as 2945 Horton which was hooked up by the U.S. EPA. The U.S. EPA refused to hook up my mobile home to public water. I request the IEPA hook up the mobile home to water also since I have to run a hose from the house to the mobile home.

Response: This residence will be hooked up to public water during this action.

Comment: We live at 3025 18th Street and request public water hookup. The house next to ours (3023 18th Street) has been offered public water and they are located 30 feet from our well. 3012 17th Street joins our property on the back and has also been offered public water so the cutoff line is jagged. Our neighbor 3035 18th Street has been denied bank loans because of the contaminated water.

Response: Reports show that this residence was listed as being tested for the contaminants of concern, and the levels were either non-detect or below the public water supply standards. This residence's water, therefore, is considered safe, and the residence will not eligible at this time for public water hookup.

Comment: I considering purchasing property at 3609 Harrison Avenue which is in the expanded study area. The Illinois Department of Public Health will test my water next week. If it exceeds public water supply standards will you pay for connecting this property to the public water supply?

Response: Your private well was sampled by the Illinois Department of Public Health, and no contaminants were detected above the public drinking water standards.

Comment: I live at 3317 Bildahl Street. You are hooking up 3329 and 3333 Bildahl and will have to come down the block to hook up these two people. Why are you not recommending public water hookup for my residence?

Response: These two residences are associated with the residence at 1306 Sandy Hollow which, when sampled, had elevated lead levels. These residences were mistakenly left on the list for hook up. The Agencies will continue to investigate the source of the lead, but at this time these residences are not eligible for public water hookup by the Agencies.

Comment: A number of people on the list for hookups commented that they approved the proposal and that they would gladly take public water hookup.

TREATMENT OF MUNICIPAL WELL #35

Question: If we get our water from Municipal Well #35, won't it be contaminated also?

Response: Part of the remedy which will be constructed by the U.S. EPA, will be a granular activated carbon treatment unit installed on Municipal Well #35 to remove the chlorinated solvents from the well.

Comment: I doubt that Municipal Well #35 can provide a permanent long term source of safe water. According to an Department of Energy and Natural Resources report Municipal Well 35 could in time receive toxic materials from shallow wells or the bedrock aquifer. In addition Municipal Well #35 may not be able to meet the demand of additional wells.

Response: Municipal Well #35 will be modified for treatment using an activated carbon unit to remove organic contaminants that could enter the well system and will be regularly monitored for such contaminants. This well will only be utilized during peak demand periods and is not intended to represent the total source for the new public hookups.

Question: Is it feasible to treat Municipal Well #35?

Response: Yes. Granular activated carbon treatment is a proven technology for removing chlorinated solvents from municipal wells.

Question: Wouldn't it be cheaper to drill a new well instead of treating Municipal Well #35 and providing new filters through the years.

Response: IEPA considered drilling a new municipal well but discarded that idea because of the time involved. Before a new well could be drilled, an extensive study of the aquifer would have to be undertaken to determine the placement of the well. This type of study would have delayed water main construction for another year which the IEPA thought unwise.

Question: Will the granular activated carbon treatment system proposed for Municipal Well #35 be noisy?

Response: No. It should not make any more noise than the well originally made without the filter system.

Comment: One person commented that if Municipal Well #35 is started, contaminants will be pulled into additional private wells. Those who turn down City water will regret their decision, because their wells may be one of those which will have increased contamination.

Response: Ongoing as well as future investigations in the Southeast Rockford area will attempt to track the movement of the contamination plume, plus monitor any influencing factors, such as the increased use of Municipal Well #35, which could cause the plume to move in an unnatural fashion. During these investigations, the Agencies will sample residential wells which could be affected by this plume movement. However, the Agencies will not be sampling wells of residents who decided to turn down the present offer of City water since it has already been determined these wells present a risk.

POINT OF ENTRY WATER TREATMENT FOR PRIVATE WELLS

Comment: I would prefer a water filter to connection with the public water supply.

Response: Since the groundwater may not be cleaned up for many years the IEPA and U.S. EPA prefer a remedy that is permanent and does not require ongoing maintenance. Water filters are not effective unless they are regularly maintained. The ongoing maintenance makes filters more expensive in the long term than public water hookups and requires a commitment of time and people that the IEPA and U.S. EPA consider to be a poor use of limited resources.

Question: Can we vote on whether or not we want filters or public water main hookup?

Response: No. The remedy chosen will have to be the same for all affected residences.

Comment: One person commented that point of entry treatment for residential wells should not be considered because maintenance costs.

REAL ESTATE SALES AND PROPERTY VALUES

Comment: The designation of this neighborhood as a federal Superfund site has caused banks to refuse home mortgage loans in the area; therefore, all houses should be hooked up to remove the stigma of a Superfund site.

Response: The IEPA has no authority over banks' decisions on lending. IEPA staff are willing to answer questions that banks, appraisers, realtors or others have about the project and clarify

the IEPA's position on liability and other aspects of the project. It should be made clear that the designation of a study area is not a delineation of an area of contamination. A study area is only an area in which the Agency is looking for contaminants. In addition, Mark Rose of the Land Acquisition Department for the City of Rockford has indicated that he is willing to work with residents to find banks that will give loans on property in the study area.

Comment: Banks refused to finance our house because it is in the study area, yet the Winnebago County Health Department said our water was fine.

Response: The Winnebago County Health Department analyzes well samples primarily for bacteria and nitrates. Your well could meet the standards for bacteria and nitrates and still violate the standards for the industrial solvents found in private wells.

Question: Will those areas not hooked up be "de-listed" from the Superfund site.

Response: The objective of the Remedial Investigation is to determine the location of the contamination plume. At that point the "site" boundaries will be developed, and those residences that are now considered part of the study area but are not in the area of contamination will no longer be considered a part of the Southeast Rockford Groundwater Contamination Site. The boundaries of the study area to date have been expanded through the use of streets as cutoff lines since the exact delineation of the plume is unknown.

Question: Designation of the area as a Superfund site has caused the value of my property to decline. Does the Superfund pay for loss of property value?

Response: No. Under the Federal Superfund Law, money cannot be used to compensate residents for loss of property value. It has been the experience of the IEPA at other Superfund sites, that if property values decline at the beginning of a project; they will rebound when action to correct the problem is undertaken. One Rockford appraiser has stated (unofficially) that he has seen no decline of property values in the area.

INVESTIGATION INTO THE SOURCE OF CONTAMINATION

Question: Is the water main construction the end of the project or is the IEPA going to stay with this project until the source is identified and cleaned up?

Response: The water main construction is only one part of the project. The IEPA will begin an investigation into the source or sources this spring. After the source or sources are identified, a study of cleanup options will be undertaken including a "no action" option. This study of options including the option preferred by the IEPA and U.S. EPA will be submitted to the public for comment before a final remedy is decided upon.

Question: How big of an area will be affected by contamination in the future?

Response: At the present, the size and extent of the contamination is unknown. The purpose of the next phase of investigations is to determine the vertical and horizontal extent of the contamination plume as well as its source. These investigations will also include a study of methods to prevent the enlargement of the contamination plume and alternatives to reduce or cleanup the contamination.

Question: How many aquifers have been contaminated?

Response: The answer to that question is not known at the present time. The investigation into the source of contamination should answer that question also.

Question: Why are the IEPA and U.S. EPA going to spend taxpayer money to find the source of contamination when all the people who are affected are going to be hooked up to public water?

Response: The IEPA and U.S. EPA wish to find the source for two reasons: (1) to recover costs of investigation, public water hookup and cleanup from those parties responsible for the contamination; (2) to clean up the source of contamination if possible. If the source or sources are still releasing contaminants into the groundwater, action must be taken to prevent further release.

Comment: The area west of 20th Street and south of Harrison has had little industry. Most of the industry is north of Harrison including the old People's Avenue Landfill which is north of Harrison.

Response: The old People's Avenue Landfill is being considered for possible inclusion on the National Priorities List (Superfund). The investigation for Southeast Rockford will consider all potential sources, including those industries north of Harrison, if necessary.

Question: I have noticed there are several areas of contamination isolated from the main plume of contamination. Have you found the contamination sources for these isolated areas? Has the contamination been stopped?

Response: No. Finding sources is one objective of the remedial investigation which will begin this spring. After the source or sources have been identified, then a determination can be made about stopping the flow of contamination.

Question: Is the contamination being caused by industry, septic systems, or old landfills where chemicals have been buried?

Response: The contaminants are chlorinated solvents that are commonly used by industry for such things as degreasing machinery and dry cleaning. These chemicals could come from industry or from old landfills where chemicals have been buried in the past. These chemicals are not septic contaminants unless someone poured solvents into their septic system.

GENERAL QUESTIONS

Comment: The junk yard at the corner of Brooke Road and 9th Street has the potential for many contaminants including sulfuric acid, oils, radiator fluids and lead.

Response: The U.S. EPA and IEPA are in the process of investigating the source or sources of the Southeast Rockford groundwater contamination. The Agencies welcome all information relevant to the potential sources of the contamination and will investigate such potential sources.

Question: How can I obtain a list of IEPA, U.S. EPA, and IDPH sample results to determine for myself whether or not public water is necessary?

Response: These results are in Section 3 of the Operable Unit Technical Memorandum at repositories located at the Rock River Branch of the Rockford Public Library at 3134 South 11th Street and at the Ken-Rock Community Center located at 3218 South 11th Street in Rockford.

Comment: Last year the U.S. EPA installed water mains for a group of houses. This year the IEPA proposes to install water mains for an additional group of houses. Next year you will install public water to Sandy Hollow Road, because the City wants to annex all

that area and they are doing it through the extension of the water main. The extension has nothing to do with pollution.

Response: The IEPA and U.S. EPA will not propose additional hookups unless sampling indicates that the contamination has spread. The IEPA and U.S. EPA have nothing to do with annexation and have no interest in whether or not an area is annexed into the City. Their main concern is to protect public health and proposals for public water hookups are based solely upon sample results that indicate that wells violate or may potentially violate public water supply standards.

Question: Have you investigated the former quarry and dump site east of 20th Street?

Response: No. The investigation into the source which will begin this spring will look at all possible sources based on information gathered from monitoring wells and soil gas survey.

IV. For More Information

Questions about the hearing process and access to exhibits should be directed to the Agency Hearing Officer, John Williams, IEPA, 2200 Churchill Road, P. O. Box 19276, Springfield, Illinois 62794-9276 or phone 217/782-5544.

Questions about the final decision should be directed to Steven Washburn, Remedial Project Management Section, Division of Land Pollution Control, IEPA, 2200 Churchill Road, Box 19276, Springfield, Illinois 62794-9296 or phone 217/782-6760.

Additional Copies of this responsiveness summary are available from Virginia Wood, Community Relations, IEPA, 2200 Churchill Road, P. O. Box 19276, Springfield, Illinois 62794- 9276, or phone 217/782-5562.

The Illinois Environmental Protection Agency's Director, Mary A. Gade, the Division of Land Pollution Control's staff and the IEPA Hearing Officer would like to thank those individuals and groups who attended the meetings and hearing, as well as those who sent in comments, for their interest and participation.

Signed: John Williams
John D. Williams
IEPA Hearing Officer

Date: May 30, 1991.

Illinois Environmental Protection Agency
2200 Churchill Road
P. O. Box 19276
Springfield, Illinois 62794-9276
Phone (217) 782-3397

ATTACHMENT

COMMUNITY RELATIONS ACTIVITIES
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION

* IEPA conducted community interviews with local officials and community leaders (February, August, and October 1989 and March 1991).

* IEPA prepared a community relations plan (March 1989 and May 1990).

* IEPA prepared and mailed a background fact sheet. (October 1989)

* IEPA held a news briefing on the project (October 1989).

* IEPA held a series of public meetings to explain the status of the project, the Superfund process, and planned action. (October, 1989)

* IEPA conducted a private well survey and obtained access for private and industrial well sampling (March through June, 1990). A part of this survey was an update on the project.

* IEPA issued a news release announcing private well sample results.

* IEPA regularly telephoned and met with local officials and community leaders to update them on the project.

* IEPA established a repository (at the same locations as U.S. EPA repository on Emergency Actions) at the Ken-Rock Community Center and the Rock River Branch of the Rockford Public Library.

* IEPA released the operable unit Remedial Investigation/ Feasibility Study (RI/FS) for public comment. A public comment period was held from March 18 until 5:00 PM April 23, 1991. In addition, a fact sheet summarizing the Operable Unit RI/FS was sent to a mailing list of over 4,000 residents and businesses. The IEPA also placed an advertisement in the news paper announcing the comment period and public hearing (March 16, 23, 30, 1991).

* The IEPA and U.S. EPA held a series of informational meetings to answer questions about the operable unit feasibility study and proposed plan (April 3, 4, 9, 10, 11).

* IEPA issued a news release announcing the Public Hearing for April 17, 1991.

* IEPA held a public hearing to receive comments on the operable unit feasibility study and proposed plan (April 17, 1991). A transcript of this hearing will be placed in the Public Repositories (Rock River Branch of the Rockford Public Library and the Kenrock Community Center).

ADMINISTRATIVE RECORD INDEX

FOR THE

SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION PROJECT

Update No. 1

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA), requires the establishment of an Administrative Record upon which the President shall base the selection of a response action (42 U. S. C. 9113 (k)(1)).

The Illinois Environmental Protection Agency (IEPA) has compiled the following official Administrative Record Index for the Southeast Rockford Groundwater Contamination National Priorities List site located in Winnebago County, Illinois. This index as well as the Administrative Record itself will be updated by the IEPA.

Please contact Virginia Wood (P. O. Box 19276, 2200 Churchill Road, Springfield, Illinois 62794-9276, telephone 217/782-5562) for more information on who and where to direct questions concerning this index.

NO.	DOCUMENT TITLE	ISSUE DATE	AUTHOR	NO. OF PAGES
1.	Operable Unit Project Plans:	6/6/90	CDM-IEPA	
	Work Plan			52
	Health & Safety Plan			59
	Quality Assurance Project Plan			192
	Sampling & Analysis Plan			73
	Community Relations Plan			21
2.	Memo Re: Update on Actual Number of Private Wells Sampled in Operable Unit Remedial Investigation (RI)	6/20/90	D. Dollins	1
3.	Validated Raw Data From Operable Unit RI Private Well Sampling	8/15/90	CDM	178
4.	Final Operable Unit RI Technical Memorandum (Includes map packet)	9/27/90	CDM	193

(MORE)

5a.	Phase I Project Plans	2/91	CDM-IEPA	
	Work Plan			56
	Health & Safety Plan			41
	Appendices			44
	Community Relations Plan			26
5b.	Quality Assuance Plan			71
	Appendices			230
	Sampling & Analysis Plan			65
	Appendices			94
6.	Operable Unit Draft Feasibility Study Report (Includes map packet)	3/91	CDM-IEPA	79
7.	Proposed Plan-Operable Unit	3/91	IEPA	12